National Energy Board | Office national de l'énergie

Reasons for Decision

Enbridge Pipelines Inc.
Line 4 Extension Project

OH-5-2007

April 2008

Facilities

Canada

National Energy Board

Reasons for Decision

In the Matter of

Enbridge Pipelines Inc.
Line 4 Extension Project

Application dated 28 June 2007 for the Line 4 Extension Project

OH-5-2007

April 2008

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Glossary of Terms and Abbreviations

Act or NEB Act	National Energy Board Act
AIV	Alternative Integrity Validation
annual capacity	the average daily rate that the pipeline system is able to transport on an annual basis
Applicant	Enbridge Pipelines Inc. (Enbridge)
b	barrel(s)
b/d	barrel(s) per day
Board or NEB	National Energy Board
CAPP	Canadian Association of Petroleum Producers
CEA Act	Canadian Environmental Assessment Act
CEAA	Canadian Environmental Assessment Agency
Certificate	Certificate of Public Convenience and Necessity
CSA	Canadian Standards Association
CSA Z662	CSA standard Z662, Oil and Gas Pipeline Systems
Enbridge	Enbridge Pipelines Inc.
EPP	Environmental Protection Plan
ESR	Environmental Screening Report
GIC	Governor in Council
IMP	Integrity Management Program
km	kilometre(s)
KP	kilometre post
m	metre(s)
m^3	cubic metre(s)
m^3/d	cubic metre(s) per day
Mainline	Enbridge's pipeline system
Mb/d	thousand barrel(s) per day

mm	millimetre(s)
Muse	Muse Stancil & Co.
NEB	National Energy Board
NPS	nominal pipe size (in inches)
OD	outside diameter
OPR-99	Onshore Pipeline Regulations, 1999
PPBoRs	Plans, Profiles, and Books of Reference
Project	Enbridge Line 4 Extension Project
Reasons	Reasons for Decision
RoW	right-of-way
SCADA	supervisory control and data acquisition
Settlement	The tolling methodology and other commercial terms and conditions related to the Line 4 Extension agreed upon by Enbridge and CAPP
station facilities	Edmonton Terminal, Strome Station and Kingman Station
TUC	Transportation Utility Corridor
U.S.	United States of America
WCSB	Western Canada Sedimentary Basin

Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* (NEB Act) and the Regulations made thereunder: and

IN THE MATTER OF an application filed with the National Energy Board by Enbridge Pipelines Inc. (Enbridge) under file OF-Fac-Oil-E101-2007-02 02, for a Certificate of Public Convenience and Necessity under section 52 of the Act, approval under Part IV of the Act and for approval under section 45 of the *Onshore Pipeline Regulations, 1999*; and

IN THE MATTER OF Hearing OH-5-2007;

Heard in Nisku, Alberta on 22 January, 2008;

BEFORE:

S. Leggett	Presiding Member
R. R. George	Member
K.M. Bateman	Member

Appearances	**Participants**	**Witnesses**
J.H. Strain R. Neufeld	Enbridge Pipelines Inc.	M. Monteith L. Sadownik M. Koby J. Paetz D. Lawson T. Sleno L. Neis G. Jordan J. Hayes M. Thompson
L. Manning N. Schultz	Canadian Association of Petroleum Producers	
T. Nahirniak		Battleford Surface Rights
M. Haug		National Energy Board

Chapter 1

Introduction

1.1 Application Information

On 29 June 2007, Enbridge Pipelines Inc. (Applicant or Enbridge) applied to the National Energy Board (the NEB or Board) for approvals related to the proposed Line 4 Extension Project (the Project). Specifically, Enbridge requested:

(a) a certificate of public convenience and necessity, pursuant to section 52 of the *National Energy Board Act* (NEB Act), authorizing the construction and operation of the Project;

(b) approval for reactivation of pipe segments pursuant to section 45 of the *Onshore Pipeline Regulations, 1999* (OPR-99);

(c) approval under Part IV of the NEB Act for the proposed tolling methodology for the Project; and

(d) such further and other relief as Enbridge may request or the Board may deem appropriate pursuant to section 20 of the NEB Act.

Further to request (d) above, at the commencement of the hearing, Enbridge advised the Board that it was seeking relief with respect to the requirement to file Plans, Profiles and Books of Reference for certain portions of the Project; see Chapter 5 for more information. At the same time, Enbridge provided a preliminary response to draft conditions which the Board had released for comment. Enbridge advised that it would request that the Board condition the filing of two Environmental Protection Plans (EPP), each covering different aspects of the Project, rather than one EPP for the entire Project[1]. See the Environmental Screening Report (ESR), issued by the Board on 15 April 2008, for more information.

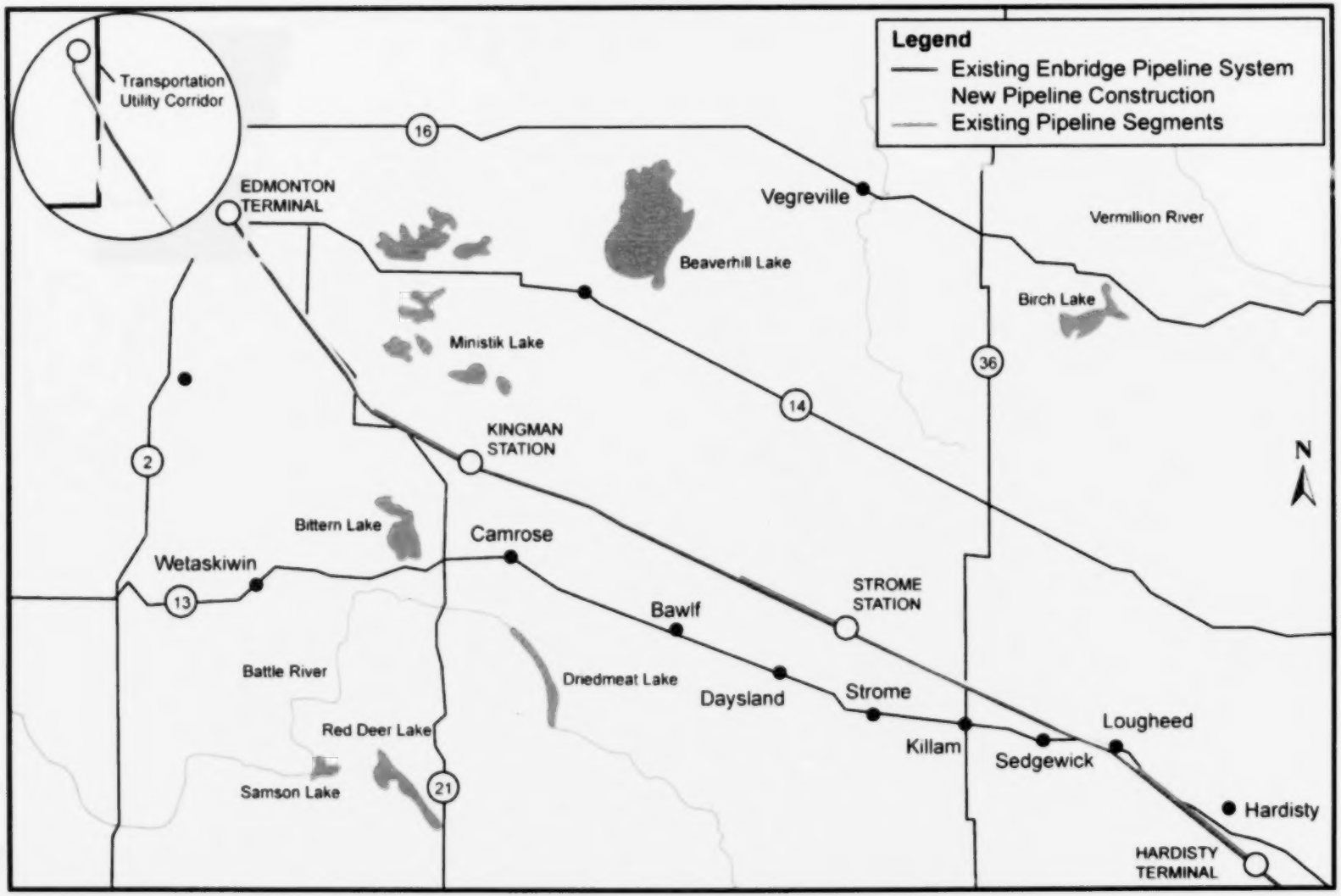
The portion of the Enbridge Mainline from Edmonton to Hardisty currently consists of three crude oil lines, while the Enbridge Mainline downstream of Hardisty is comprised of four crude oil lines. The purpose of the applied-for Project is to extend Line 4 upstream from Hardisty to Edmonton. The Project would relieve a potential bottleneck and would also add an additional line across this segment to increase system security and flexibility. The average annual capacity of Line 4 would be 140 000 cubic metres per day (m^3/d) (880,600 barrels per day (b/d)). Please refer to Chapter 2 for additional detail about the Project.

Enbridge proposes to commence construction of the station facilities portion of the Project on 5 May 2008. It plans to start pipeline construction on 1 August 2008. Enbridge indicated that the Project is to be in service by 31 March 2009.

---

1 Throughout these Reasons, conditions and the ESR, the terms "facilities", "stations" and "station facilities" shall mean the existing Kingman and Strome pumping stations and the Edmonton Terminal. The term "pipeline" shall refer to new construction of the line pipe.

Figure 1-1
Line 4 Extension Project



1.2 Background

On 11 May 2007, Enbridge filed its preliminary information package. This served to initiate and facilitate the regulatory review of the Project. It also enabled the Board and other federal departments to determine their environmental assessment responsibilities and the scope of the assessment under the *Canadian Environmental Assessment Act* (CEA Act), as triggered by Enbridge's application for the Project pursuant to section 52 of the NEB Act. The Project requires 9.9 kilometres (km) of new right-of-way (RoW), therefore a screening level of environmental assessment under the CEA Act was required.

The Board completed its ESR pursuant to the CEA Act. A draft ESR was released for public review and comment on 19 March 2008, and the final ESR was issued by the Board on 15 April 2008.

The regulatory application for the Project was filed on 29 June 2007, and the Board issued Hearing Order OH-5-2007 on 31 July 2007. The Board received and approved 14 applications for intervenor status. Prior to the oral portion of the hearing, six intervenors withdrew their interventions.

Board staff held a public information session on 16 August 2007 in Camrose, Alberta and a subsequent intervenor information session on 24 October, 2007 in Nisku, Alberta. The latter information session helped intervenors understand how to participate effectively in the Board's process, including preparing evidence and information requests and participating during the oral portion of the hearing.

The oral hearing took place in Nisku, Alberta on 22 January 2008. During the oral hearing, only one intervenor, the Battleford Surface Rights Association, questioned Enbridge.

Chapter 2

Facilities

Chapter 2 addresses the design of the Project, as well as the measures to ensure ongoing integrity and safety, from the construction to the operation of the Project.

In discharging its regulatory oversight responsibilities, the Board uses a continuous verification approach to ensure that companies identify and manage integrity-related hazards that may impact safety and the environment throughout the life of a project. This approach follows a project from design to construction, operation and until the Project is abandoned.

The adequacy, implementation and effectiveness of a company's commitments are typically verified by the Board through audits, inspections and meetings. In addition, the Board may also perform ongoing monitoring and follow-up of a company's compliance and incidents. The public may become involved by reporting situations they feel warrant attention by the Board. This compliance approach is an integral part of the Board's continuous oversight of a company's pipeline and facilities. Accordingly, should the Project be approved, the Board would employ its compliance verification approach to verify that Enbridge is meeting the commitments outlined throughout the OH-5-2007 proceedings, in these Reasons and in the Certificate conditions.

2.1 Project Description

The Project will extend Line 4 upstream from Hardisty to Edmonton, Alberta passing through the pumping stations at Strome and Kingman. The existing Line 4 transports crude oil from Hardisty to the Canada/United States (U.S.) border near Gretna, Manitoba. The extension will be comprised of three new segments of 914 mm outside diameter (OD) (nominal pipe size (NPS) 36), and three reactivated segments of 1 219 mm OD (NPS 48) from the former Line 3.

In addition to the mainline pipe, three mainline valves will be added to provide isolation for the segments. Modifications will be done to the Kingman and Strome pumping stations to accommodate the Project. A new pumping station, as well as booster pumps and associated piping, will be added to the Edmonton Terminal.

Three existing 1 219 mm OD (NPS 48) launcher barrels will be removed and three 914 mm OD (NPS 36) launcher assemblies will be installed.

2.2 Project Design

2.2.1 Applicable Standards, Regulations and Company Procedures

Compliance with OPR-99 and Canadian Standards Association (CSA)

Enbridge indicated that the Project would be designed, constructed or reactivated, and operated in accordance with applicable regulations, and industry codes and standards including the OPR-

99, which incorporates by reference the latest CSA Z662 standard on *Oil and Gas Pipeline Systems*. These regulations and standards in turn reference other standards that would be followed in the design.

Enbridge's Quality Management Plan

Enbridge committed to implement a quality management plan consisting of a design quality management system, a materials quality management system and a construction plan. The quality management plan would be implemented to ensure that all applicable environmental, regulatory and statutory requirements would be met. The quality management plan would be used to monitor and document evidence of compliance. The effectiveness of the plan would be assessed through internal quality audits. The requirements and expectations for quality management and assurance would be applied to contractors, subcontractors and suppliers as appropriate.

Views of the Board

The Board notes that Enbridge committed to design the Project in accordance with OPR-99 and CSA Z662. In addition, the Board notes Enbridge's commitment to implement a quality management plan for the design and construction of the Project.

If the Project were to be approved, the Board would confirm compliance to Enbridge's commitments, as well as to the NEB Act and Regulations, and ensure that Enbridge's quality management plan was successfully supporting the Project. This would be done throughout the reactivation, construction, operation, and eventual abandonment phases of the Project. The Board would also review the effectiveness of Enbridge's internal quality audits.

2.2.2 Depth of Cover

Enbridge committed to a depth of cover for the pipeline of 0.9 m below the topsoil. CSA Z662 stipulates that, for a line of this type running through this type of land, a depth of cover of 0.6 m is sufficient.

Concern was expressed by Mr. Tom Nahirniak, representing the Battleford Surface Rights Association, that the 0.9 m depth of cover was not sufficient to prevent soil heating from the flowing oil, potentially resulting in crop losses. In his view, deeper cover could also reduce delays in receiving permission for crossing the pipeline with farm implements because such permission may not be necessary, and could reduce the likelihood of damage to the pipeline from strikes by farm implements.

Enbridge replied that the minimum allowable cover for pipelines as defined in CSA Z662 is 0.6 m and that the Enbridge standard of 0.9 m exceeds this standard. Enbridge's standard also measures the depth of cover to the base of the topsoil. Therefore, the depth of cover will exceed the 0.9 m Enbridge standard by the additional depth provided by the top soil.

Enbridge's evidence on the issue of crossing permissions and their impact on agricultural activities is discussed more fully in section 4.2.3.

Enbridge also advised that any activity that results in a ground penetration of more than 0.3 m is considered a ground disturbance, irrespective of how deep the pipeline is buried, and requires a call to Alberta One Call before it occurs to ensure the activity can be done safely.

Enbridge indicated that if crop losses occur for any reason due to the pipeline, Enbridge has committed to compensating affected landowners accordingly.

Views of the Board

The Board notes Enbridge's commitment to ensure ongoing pipeline integrity and public safety. The Board also notes that Enbridge is required to achieve and maintain its commitments regarding depth of cover and compensation.

The Board assesses compliance to commitments through a number of methods, including audits and inspections. The Board also assesses the effectiveness of those commitments.

Related landowner issues and the Board's views on those issues are discussed in further detail in Chapter 4.

2.2.3 Pressure Testing

Enbridge committed to complying with the requirements of OPR-99 and CSA Z662 as they pertain to pressure testing of the new piping and assemblies. The use of the Alternative Integrity Verification (AIV) in lieu of hydrotesting was rejected by Enbridge as an option in achieving compliance to OPR-99 and CSA Z662.

Views of the Board

The Board notes that Enbridge is required to comply with the OPR-99 and CSA Z662 for the new pipe as those requirements pertain to pressure testing. The Board will review the results of these tests and, if deemed necessary, audit and inspect the pressure testing process.

2.3 Facilities Integrity

2.3.1 Integrity Management Program

The primary goal of the Integrity Management Program (IMP) is to prevent leaks and ruptures caused by in-service degradation of the Project.

Enbridge committed to use its IMP to identify, assess and evaluate operational risks applicable to Enbridge's pipelines and facilities and indicated that the Project would be fully integrated into its existing IMP.

Views of the Board

The Board requires companies to develop and implement an IMP to proactively identify and mitigate any potential hazards to the pipeline and facilities. The IMP is a continuous improvement process to be used throughout the life of the Project. If the Project is approved and becomes operational, Enbridge would be responsible to ensure the operational reliability of all system components.

Based on the evidence provided, the Board is satisfied that Enbridge's IMP contains the key framework components to proactively identify and mitigate potential hazards to the proposed pipeline and facilities. Should the Project be approved, the Board will continue to assess Enbridge's IMP and related commitments.

2.4 Construction and Operation

2.4.1 Construction Safety

Enbridge committed to develop a comprehensive health, environmental and safety plan for the construction of the Project. This plan would address safety requirements, responsibilities and lines of communication during construction and commissioning. All field crews engaged on the Project would be trained and provided with a field handbook describing the main features of this plan. In addition, random internal audits would be conducted to ensure that personnel comply with the health, environmental and safety plan.

Enbridge committed to prepare a construction plan that would describe the specifications, safety, permitting, environmental, construction, testing, control of materials and quality control requirements applicable during project construction and to comply with CSA Z662, OPR-99, and the NEB Act.

Enbridge responded to concerns regarding how its safety program responds to changing conditions which affect safety. The response described the scope, scheduling, and commitments of its safety audit programs, and how its program includes continual assessment and improvement in order to respond to changing conditions.

Views of the Board

The Board notes Enbridge's commitment to the health and safety of its workers. The continual review and improvement of its safety program gives the Board confidence that Enbridge's commitment will encourage and promote a safe work environment. Safety of NEB-regulated facilities

and workers is a primary concern of the Board. Continued Board oversight will be maintained through safety audits and inspections, as well as through other tools.

2.4.2 Joining Program, Quality Program and Pipeline Systems Control

Enbridge indicated that it would develop its Joining Program consistent with OPR-99 requirements, and in compliance with CSA Z662. Enbridge also committed to developing a Quality Program consistent with OPR-99 requirements.

Enbridge monitors and controls its pipelines and facilities through a supervisory control and data acquisition (SCADA) system. Enbridge indicated that its SCADA system allows operators based at the Edmonton control centre to remotely monitor and control all elements of the Project, including the pipelines, tanks, pump stations, valves and custody transfer metering. The system also monitors line pressures, flow rates, gas and fire detectors as well as other safety systems.

Views of the Board

The Board is satisfied that Enbridge's Joining and Quality Programs will be in compliance with OPR-99 and CSA Z662.

The Board finds that the SCADA system, as described and utilized by Enbridge, is an appropriate method for monitoring and controlling the performance of the proposed Project. Through its regulatory oversight, the Board has the authority to, among other things, audit and inspect the instrumentation in place, as well as the other components of the SCADA system, to determine its continued appropriateness and adequacy for the conditions it operates under, as well as its response to upset conditions.

2.5 Emergency Preparedness and Response

Enbridge stated that it has a comprehensive emergency response plan for all of its pipelines located between Edmonton and Gretna. The plan includes many preventive measures, such as educating the public (in advance) regarding pipeline crossings and encroachment issues. Enbridge noted that the plan will be modified to incorporate the Project.

Views of the Board

The Board notes Enbridge's commitment to modify its emergency response plan to incorporate the Project and has included this commitment as a condition, set out in Appendix II to these Reasons. The Board directs Enbridge to file its updated emergency response plan at least 30 days prior to applying for Leave to Open.

2.6 Reactivation Request

Enbridge indicated that a portion of the line pipe for the Project would be comprised of segments from the former Line 3. These line segments had recently been approved for deactivation under Order XO-E101-04-2006. As a result, Enbridge sought a reactivation order for those line segments.

Enbridge stated that these line segments had not yet been physically deactivated before they were deemed appropriate for use in this Project. The segments had remained as part of the continued operating pipeline system and as such had continued to be monitored and maintained through existing programs. In addition, the line segments had not yet been removed from ongoing monitoring and integrity programs.

Furthermore, these line segments had been in recent operation with consistent operating parameters to those proposed in the Project application. The previous pressure tests and integrity maintenance were in compliance with OPR-99 and CSA Z662, and so Enbridge argued that those approved operating parameters remain valid. Enbridge further indicated that these line segments had been pressure tested.

Views of the Board

The Board notes that these line segments proposed for reactivation had been in recent operation with consistent operating parameters as those proposed for the Project. The previous pressure tests and integrity maintenance programs were in compliance with OPR-99 and CA Z662 and so those approved operating parameters remain valid. The Board is satisfied that the reactivated line segments remain suitable for service as a component of the Project. In addition, the Board is satisfied with Enbridge's compliance with OPR-99 and CSA Z662 with respect to the pressure test.

The Board accepts Enbridge's assessment that the line segments are fit for the proposed Project's service, including fluid type and operating pressures. The Board also accepts that the line segments have been maintained in an operational state and that the deactivation order did not affect that.

The Board finds that it is appropriate to grant the request for reactivation, subject to the terms and conditions attached as Appendix III to these Reasons.

The Board notes that the reactivated line segments will be treated as part of the Project as a whole. Therefore, the reactivated portions are subject to all applicable commitments made by Enbridge during the proceeding, conditions imposed by the Board and relevant plans and programs to be implemented by Enbridge for the rest of the Project.

The purpose of Enbridge's IMP is to ensure, among other things, that these line segments remain fit for the service and parameters under which the line segments operate. The Board will continue to assess the results and effectiveness of Enbridge's IMP with respect to the Project as a whole, including its effectiveness with respect to these segments.

Chapter 3

Public and Aboriginal Consultation

As set out in Section 3.3 of the NEB Filing Manual, the Board expects companies to design a consultation program that is appropriate for the scope, scale and setting of their projects. Applicants are expected to outline the principles, goals, design details and the justification for their consultation program. An applicant's consultation program is expected to continue throughout the application process, as well as during the construction and operation phases of a project.

This chapter addresses the public consultation and Aboriginal engagement programs undertaken by Enbridge with regard to the Project.

3.1 Public Consultation

Enbridge's Public Consultation Program

In its application, Enbridge submitted that the design and implementation of its public consultation program was based on its Corporate Social Responsibility Policy, as well as its Statement on Business Conduct regarding relationships with landowners, customers and others. The stated principles of Enbridge's public consultation program for the Project are:

- to engage stakeholders early in the planning process and seek input;
- that consultation is transparent and open; and,
- that Enbridge will develop and maintain ongoing dialogue with stakeholders through all Project stages to increase knowledge of the effects of Enbridge's business activities, develop balanced standards and expectations, and seek to address issues to the extent possible.

The consultation program sought to identify landowners and stakeholders relevant to the Project. Enbridge identified landowners and occupants within a 200 m radius of the existing and proposed RoW. The program also identified local government bodies, local and regional service providers and other government authorities for consultation.

Beginning in February 2007, a variety of methods was used by Enbridge to provide information on the Project to interested and affected parties. These included personal meetings, mail-out packages, public notice advertisements in local newspapers, and open house meetings. In addition, the public consultation program was designed to offer the public opportunities to respond to Project information and to raise any concerns or interests. These included a toll-free Project line and surveys conducted at open house meetings. During consultations, Enbridge informed parties about the ways in which they can continue to provide input to the company throughout the life of the Project.

Enbridge submitted that interests and concerns identified through its consultation program have been considered in Project planning. For example, concerns regarding the Project's initially proposed route through Strathcona County were raised by County officials. Enbridge submitted that after further consultation, the final proposed routing for the Project through Strathcona County was found to be acceptable by County officials.

Enbridge committed to continuing public consultation throughout the life of the Project, and to maintaining communication and consultation through its Public Awareness Program, should the Project be approved. Enbridge also committed to including with its Urban Construction Plan (see Chapter 4, Environmental and Socio-Economic Matters) a report on consultation for the development of the Plan, including details on how concerns and issues raised by interested and affected stakeholders have been addressed.

Views of the Parties

Battleford Surface Rights Association

Mr. Narhirniak, on behalf of Battleford Surface Rights Association, raised a concern regarding the low public turn out at a Project open house held by Enbridge in Daysland on 27 March 2007. Mr. Nahirniak suggested that some concerns were raised regarding the way the meeting was conducted, and about information that was provided. Mr. Nahirniak also questioned the overall effectiveness of open house meetings as a means of providing information to members of the public.

Enbridge

In response, Enbridge submitted that it implemented a broadly-based consultation program for the Project in accordance with the Board's policies and directives to pipeline companies. Enbridge also maintained that it has successfully engaged in discussions with local authorities and individual landowners along the RoW for the Project. Enbridge committed to continuing consultation with Mr. Nahirniak to address his interests and concerns, and will consider his comments for future open house meetings.

Views of the Board

The Board promotes the undertaking, by regulated companies, of an appropriate level of public involvement that corresponds with the nature, setting and magnitude of each project. This recognizes that public involvement is a fundamental component during each phase throughout the life of a project in order to address potential impacts.

The Board acknowledges Enbridge's commitment to continuing public consultation throughout the life of the Project, as well as its responsiveness to concerns raised by potentially affected stakeholders, for example, Strathcona County and Mr. Nahirniak.

The Board is of the view that Enbridge's public consultation program was adequate given the scale and setting of the Project. Enbridge identified potentially affected landowners and stakeholders, and used appropriate methods to provide project information and to gather concerns and comments which it used in the design of the Project.

3.2 Aboriginal Engagement

Enbridge's Aboriginal Engagement Program

In its application, Enbridge submitted that its Aboriginal Consultation Protocol for the Project is based on its company-wide Indigenous Peoples Policy, which establishes the key principles for guiding Enbridge's relations with First Nations and Métis peoples.

Enbridge's goals for its Aboriginal engagement program include:

- engaging with Aboriginal communities early in the process, and continuing engagement throughout the life of the project;
- developing consultation protocols with potentially affected First Nations and Métis communities;
- providing information in a timely, ongoing and sensitive manner;
- providing opportunities to Aboriginal groups to identify issues and potential project effects;
- responding to issues and concerns; and,
- providing opportunities to seek joint issue resolution and explore participation by Aboriginal peoples in the project.

Beginning in February 2007, Enbridge aimed to identify and establish contact with Aboriginal peoples who may have an interest in the Project. Enbridge used an 80 km zone centred from the RoW as a guide to identify potentially affected Aboriginal peoples. A total of 15 potentially affected First Nations, Aboriginal Organizations and Métis communities within the boundaries of Treaty No. 6 and the Métis Nation of Alberta Regions 2 and 4 were identified, as listed in Table 3-1.

Table 3-1
First Nation and Aboriginal Communities Identified by Enbridge as Interested or Potentially Affected by the Line 4 Project

Alexander First Nation	Onion Lake First Nation
Cold Lake First Nation	Saddle Lake Cree Nation
Enoch Cree Nation	Samson Cree Nation
Ermineskin Cree Nation	Tribal Chief's Peacekeeping Conservation Commission
Frog Lake First Nation	Whitefish Lake First Nation # 128
Kehewin Cree Nation	Métis Nation of Alberta Region 2
Louis Bull Tribe First Nation	Métis Nation of Alberta Region 4
Montana First Nation	

First Nations and Aboriginal Organizations outside the 80 km consultation zone who informed Enbridge of their interest in the Project were also consulted.

Enbridge submitted that introductory letters and information packages were sent to identified First Nations, Aboriginal Organizations and Métis communities, and that subsequent and on-going consultation activities have included mail-outs of Project information and newsletters, open houses, meetings with community leadership, information drop-offs and issue tracking.

Three First Nations and Aboriginal Organizations registered as intervenors for the Line 4 hearing. Each of these intervenors subsequently withdrew from the proceedings prior to the oral portion of the hearing.

Table 3-2
Aboriginal Intervenors in the Line 4 Hearing

Intervenor	Filed evidence	Withdrew from process	Presented witnesses	Final argument
International Organization of Indigenous Resource Development		√		
Maskwacis Cree Nation		√		
Montana First Nation		√		

Enbridge submitted that no outstanding issues or concerns have been identified by First Nations, Aboriginal Organizations or Métis communities consulted for the Project. Enbridge also submitted that its consultation activities with Aboriginal peoples is on-going, that the company committed to continuing Aboriginal engagement activities and consultation throughout the life of the Project, and also committed to continuing to provide opportunities for Aboriginal participation in the Project.

Enbridge submitted that traditional use studies are being completed by three Aboriginal communities, but that the final completion date of these studies will be determined by the Aboriginal communities themselves, as they are undertaking these studies. Enbridge submitted that none of the First Nations, Aboriginal Organizations or Métis communities consulted on the Project have brought forward any concerns regarding impacts to traditional use. Enbridge committed that it will file the completed traditional use information, in a form that will respect confidentiality concerns, as it is made available to the company.

Views of the Board

The Board notes Enbridge's commitment to ongoing consultation with Aboriginal peoples, and its commitment to the filing of traditional use studies, as these are completed. In light of Enbridge's commitments, the Board is of the view that the Aboriginal consultation program undertaken by Enbridge is consistent with the requirements of the NEB's Filing Manual, and that the program was adequate given the scale and setting of the Project.

Chapter 4

Environmental and Socio-Economic Matters

The Board considers environmental and socio-economic matters under both the CEA Act and the NEB Act. The Board expects applicants to identify and consider the effects a project may have on bio-physical and socio-economic elements, the mitigation to reduce those effects, and the significance of any residual effects once the mitigation has been applied.

This chapter provides a brief description of the environmental assessment process used by the NEB for the Project. It also addresses the socio-economic issues that are not evaluated in the Board's CEA Act ESR.

4.1 Environmental Screening Process

The Project would require a Certificate of Public Convenience and Necessity under section 52 of the NEB Act. As a result, an environmental assessment is triggered under the CEA Act.

Pursuant to the CEA Act *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements*, the NEB coordinated Responsible Authority and Federal Authority involvement in the CEA Act process.

The ESR reflects parties' comments and the Board's assessment of the bio-physical and socio-economic effects of the Project and mitigation measures based on the Project description, factors to be considered, and the scope of those factors. The ESR also includes recommendations for conditions to be included in any Board regulatory approvals. The Board's overall conclusion and disposition are provided in Chapter 8 of these Reasons. The recommendations for the conditions to be included in the Certificate are discussed in the ESR and included in Appendix II.

All known environmental and socio-economic effects covered by the CEA Act are assessed in the ESR.

Views of the Board

With respect to its regulatory decision under the NEB Act, the Board has considered and adopted the CEA Act ESR, including the recommendations.

The Board determined in the ESR that, with the implementation of Enbridge's environmental protection procedures and mitigation measures and the recommended conditions, the proposed Project is not likely to cause significant adverse environmental effects.

For details regarding the Board's assessment of the environmental and socio-economic effects associated with the Project pursuant the CEA Act,

please refer to the ESR. Copies of the ESR are available in the NEB library or on-line within the Board's Regulatory Documents repository at www.neb-one.gc.ca.

4.2 Socio-Economic Matters

Potential socio-economic effects that are covered under the NEB Act are presented in sections 4.2.1 through 4.2.3 below. These address the potential effects of the Project on infrastructure, services and agricultural activities.

4.2.1 Infrastructure

Enbridge submitted that effects on local traffic and increases in traffic volumes along major highways and local roads will occur during construction of the Project. Enbridge also submitted there may be overlaps with construction schedules for other major projects that could affect local and highway traffic, including construction of the Keystone Pipeline, the Alberta Clipper Project, and components of the Southern Lights Project.

Enbridge committed to work with local authorities to ensure that effects on local traffic are minimized, and to ensure appropriate public safety measures are provided. The EPP for the Project will contain a Traffic Control Plan addressing traffic safety and management for the Project, including measures to address traffic at the Edmonton Terminal. Enbridge also committed to providing, as part of the Project EPP, an Urban Construction Plan for the Project that will be developed in consultation with local officials. The Urban Construction Plan will include details on traffic safety and management during construction activities near the Colchester School.

Views of the Parties

Battleford Surface Rights Association

Mr. Nahirniak raised a concern regarding the movement of large pieces of agricultural equipment along public roadways during construction activities. Mr. Nahirniak contended that there may be conflicts between construction traffic and the movement of agricultural equipment, particularly if construction occurs during the harvest period.

Enbridge

Enbridge committed to work with local authorities to ensure that effects on local traffic are minimized, and to develop and submit a Traffic Control Plan to address traffic safety and management for the Project.

4.2.2 Services

Enbridge submitted that a total construction workforce of 400 to 500 will be required for the Project, and that workers will be accommodated in local temporary accommodations (hotels, motels and campgrounds) along the proposed route.

In order to minimize disturbance to local communities and services during construction activities, Enbridge committed to completing and filing with the Board a Workforce Accommodation Plan as part of the EPP for the Project. Enbridge also submitted a Worker Code of Conduct that outlines company expectations for the conduct of Project employees and contractors. Enbridge committed that the Code of Conduct will also be made available to appropriate local officials and police during construction.

Views of the Parties

Battleford Surface Rights Association

Mr. Nahirniak submitted that not all emergency services along the proposed Project route had been identified in Enbridge's assessment of community services in the Project area, including the Round Hill and Hay Lakes Fire Departments.

Enbridge

Enbridge agreed that information on emergency services contained in the application focused on larger communities along the proposed Project route. Enbridge also stated that it maintains an emergency response directory and communicates on an annual basis with local fire departments, RCMP and disaster services about its operations.

4.2.3 Disruption to Agricultural Activities

Enbridge noted that ranchers and farmers along the proposed route may experience disruption to their activities during the short-term duration of construction. However, in Enbridge's view, the Project will not affect the sustainability of farming and ranching activities in the vicinity of the Project route, or the livelihood of local farmers and ranchers.

Views of the Parties

Battleford Surface Rights Association

Mr. Nahirniak inquired if Enbridge would consider altering the minimum depth of cover for the pipeline, from 0.9 m as stated in the company's application, to 1.5 m. Mr. Nahirniak argued that such a change would allow landowners to maintain the use and enjoyment of their land and reduce the need to obtain permissions for RoW crossings.

Mr. Nahirniak also raised a concern regarding the scheduling of construction activities during seeding or harvesting activities, and the potential disruption to agricultural activities that could result from increased road traffic during pipeline construction.

Enbridge

Enbridge indicated that it provides blanket approval to landowners for crossing the RoW with agricultural equipment that does not exceed maximum allowable axle loading or basic operating weight (as detailed in CSA Z662). In its application, Enbridge also stated that scheduling pipeline construction outside of peak times for agricultural activities (where feasible), providing advanced notification of construction schedules to landowners, and providing compensation for disrupted activities and crop loss would lessen potential impacts on agricultural activities.

Views of the Board

The Board requires the identification and consideration, by regulated companies, of the effects of projects on individuals, groups, communities and societies. This includes consideration of a project's positive and negative socio-economic impacts, as well as any proposed enhancement and mitigation measures.

The Board notes Enbridge's commitment to completing and submitting plans to address potential socio-economic effects of the Project, including a Traffic Control Plan to address traffic safety and management for the Project, an Urban Construction Plan, and a Workforce Accommodation Plan. All plans will be submitted with the Project EPP, which is for Board approval. The Board notes that, in this application, these plans will be submitted to the Board after the oral portion of the hearing has concluded. The timely submission of all relevant plans is critical to the Board for determining both the appropriateness of proposed plans, as well as the acceptability of proposed mitigation measures.

In light of Enbridge's commitment to providing the above-noted plans for approval, the Board is of the view that the Project's impacts on infrastructure and services will be adequately addressed.

The Board notes that Enbridge indicated it provides blanket approval for RoW crossings for agricultural equipment in line with CSA Z662. Enbridge also committed to providing a Traffic Control Plan for the Project, and to scheduling, where feasible, Project construction outside of peak times for agricultural activities. As a result, the Board is also of the view that Enbridge has considered the Project's impacts on agricultural activities, and that potential Project effects will be adequately addressed.

Chapter 5

Land Matters

The Board expects companies to provide a description and rationale for both permanent and temporary lands that will be required for a project in order to assess the extent of new lands to be affected by a project. In addition, companies are required to advise the Board if they are using any of their existing land rights, or if there are areas where only temporary land rights are required.

The Board also requires a description of the land acquisition process as well as the status of acquisition activities. This provides the Board with information regarding a company's planned timing of acquisition. Pursuant to the NEB's Filing Manual, companies must provide the Board with a copy of the sample notices provided to landowners under subsection 87(1) of the NEB Act as well as all forms of the acquisition agreements.

5.1 Land Areas and Land Rights

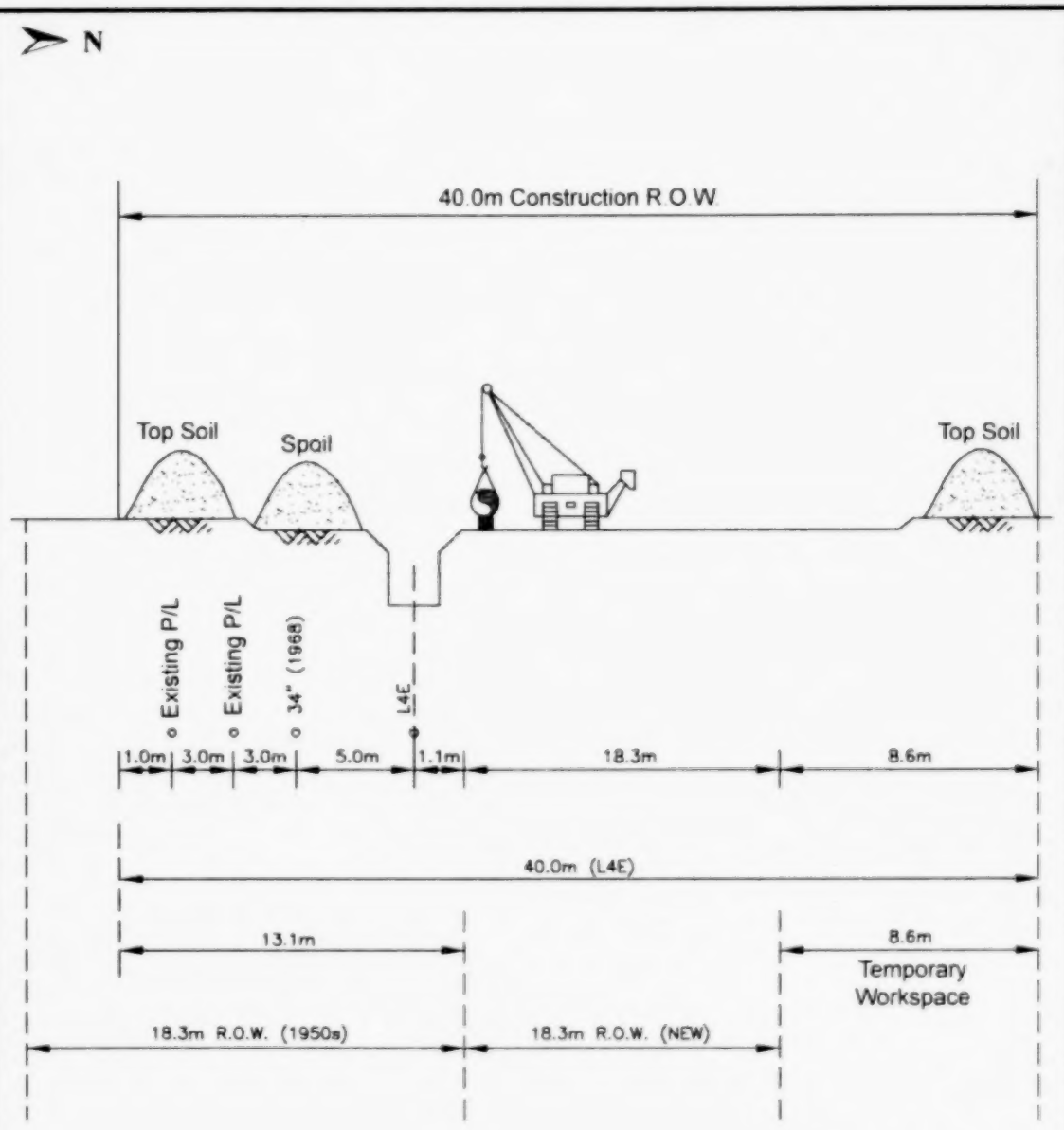
The Project includes the construction of three pipeline segments between Hardisty and Edmonton, Alberta, as well as modifications to existing facilities, such as pump stations, and the reactivation of existing pipe. Enbridge stated in its application that there were approximately 200 private landowners and 60 tenants. The proposed route would parallel the Transportation Utility Corridor (TUC) for approximately 9.9 km. About 10.9 km of the Project is on Crown lands.

5.1.1 Permanent Easement

The majority (88 percent) of construction is proposed either within Enbridge's existing RoW or contiguous to Enbridge's RoW. Within the TUC, the proposed easement width is 10.0 m. Outside the TUC and not paralleling existing Enbridge RoW, the width is proposed to be 18.3 m.

Enbridge stated that the widths of RoW required vary in order to create a permanent RoW of 36.6 m in locations where the new pipe will be adjacent to existing Enbridge RoW. In its application, Enbridge presented six different figures depicting the RoW widths and construction work areas. Figure 5.1 below, submitted as Figure L4E ROW2 in Enbridge's application, shows a new 18.3 m easement adjacent and parallel to the north side of the existing easement. The proposed Project would be installed within the existing Enbridge easement, 1.1 m from the northerly boundary of that easement. Enbridge submits that the new easement shown in Figure 5.1 is to support the operation and maintenance of the proposed Project. Enbridge stated however, that it does not immediately require all of this width for the operation of the proposed Project, but explained that this width will allow some additional flexibility with respect to its future operations.

Figure 5.1
Figure L4E ROW2 from Exhibit B-01



NOTES

1. All typical existing Right-of-way dimensions and pipeline location taken from Engridge Route Sheets. May 8, 2006.

Enbridge indicated it could accommodate a smaller RoW configuration. However, it had discussed this configuration with the landowners and was successful in acquiring the new 18.3 m easement. In the event that a landowner raises a concern, Enbridge committed to accommodating the concern the best it could.

5.1.2 Temporary Workspace

Enbridge proposes to use temporary work space varying between 8.6 m and 30.0 m in width.

5.1.3 Pump Stations and Valve Sites

No new lands are required for the proposed pump stations. For the valve sites, Enbridge proposes to enter into lease agreements.

Views of the Board

The Board finds the proposed land rights for permanent easement, valve sites, pump stations and temporary workspace to be acceptable.

The Board notes Enbridge's rationale for the proposed acquisition of 18.3 m new easement for certain locations as depicted in Figure 5.1 to be for the purpose of establishing a consistent RoW width of 36.6 m.

The Board also notes Enbridge's evidence that the construction of the proposed Project can occur within its existing easement at these locations and that Enbridge is acquiring this additional RoW to support the operation and maintenance of the proposed Project, though not all of this additional RoW is needed for this Project.

Enbridge stated it provided landowners with its rationale for acquiring the additional easement during its negotiations with landowners, and, further, the Board notes that no party presented evidence or argument in opposition to this proposed acquisition.

The Board is of the view that based on the evidence before the Board, what is being proposed by Enbridge appears reasonable for this Project. Should the landowners or Enbridge be unable to reach an agreement, there are regulatory and non-regulatory processes to consider such matters.

5.2 Land Acquisition Process and Agreements

In its application, Enbridge stated that it would comply with the provisions of the NEB Act, apprise landowners of likely impacts, and negotiate fair and reasonable compensation. Any disagreements will be settled through negotiations or addressed using procedures in the NEB Act.

At the time of filing its application, Enbridge had met with and acquired environmental survey consents from the majority of landowners and occupants. The acquisition process began in July 2007 and will be competed by May 2008.

At time of application, no notices pursuant to section 87(1) of the NEB Act had been served. As part of its application, Enbridge submitted copies of its land acquisition agreements as well as its form of section 87(1) Notice. Enbridge also provided a copy of its sample section 87(1) notice and indicated that a copy of the NEB Publication *Pipeline Regulation in Canada: A Guide for Landowners and the Public* would be provided to landowners. In addition, landowners would receive a detailed route map of the Project over their lands.

At the hearing, Enbridge advised that all section 87(1) notices had been served. Enbridge also provided an update on its acquisition activities, indicating 270 of 291 tracts have been acquired. This left 21 tracts outstanding, representing 18 landowners. Approximately 93 percent of the freehold RoW agreements and temporary workspace agreements required for construction of this Project were obtained in advance of the hearing.

Views of the Board

The Board finds that Enbridge's proposed acquisition process and land acquisition documents are acceptable.

5.3 Plans, Profiles & Books of Reference (PPBoRs)

According to the NEB Act, upon issuance of a certificate, Enbridge is required to file its PPBoRs with the Board. With respect to the three new pipeline segments, Enbridge indicated it would comply with the provisions of the NEB Act.

However, for the remaining aspects of its proposed Project, Enbridge indicated that no further approvals under the NEB Act, such as approval of a detailed route for the reactivated pipe, or pump station construction and modification activities, should be required because the route already exists and approved PPBoRs exist for these portions of the Project. Further, no new lands are permanently required for the pump station modifications or for the reactivations.

Enbridge further argued that in its view, the Board could either take the position that PPBoRs had already been done and consequently there is no need for an exemption, or, the Board could simply exempt, pursuant to section 58 of the NEB Act, those pump stations from the requirements of the NEB Act in that regard.

Views of the Board

The Board notes that PPBoRs were previously filed for reactivated pipe and for the station facilites, because these were pre-existing. In addition, no permanent land rights are required for the reactivations and the pump station modifications. In these particular circumstances, the Board finds that there is no need for Enbridge to file new PPBoRs for reactivated pipe and station facilities. Consequently, the Board has decided to grant

Enbridge exemption under section 58 from filing of PPBoRs for the reactivated pipe and station facilities.

Should this Project be approved, Enbridge will be required to file, pursuant to subsection 33(1) if the NEB Act, its PPBoRs for the three new segments of its Project. Those segments include:

- A 41.0 km (25.4 mile) segment of new pipe to connect the Edmonton Terminal (KP 0) to the upstream end of the first segment of existing pipe near the Kingman pump station at KP 36.95;
- A 47.3 km (29.3 mile) segment of new pipe to connect the Kingman pump station at KP 51.4 to the upstream end of the second segment of existing pipe at KP 98.57; and
- A 49.3 km (30.7 mile) segment of new pipe to connect the Strome pump station at KP 112.19 to the upstream end of the third segment of existing pipe at KP 161.6.

Chapter 6

Tolls and Tariffs

Line 4 Commercial Settlement between the Canadian Association of Petroleum Producers (CAPP) and Enbridge (the Settlement)

The tolling methodology and other commercial terms and conditions related to the Project were agreed upon by Enbridge and CAPP and are outlined in the Settlement. Enbridge asked for the approval of the Settlement pursuant to Part IV of the NEB Act and in accordance with the NEB's *Revised Guidelines for Negotiated Settlements of Traffic, Tolls and Tariffs.*

Key parameters of the Settlement:

- The term of the Settlement is 15 years from the date upon which the Project is able to accept oil;
- The deemed capital structure for the Project will consist of 55 percent debt and 45 percent equity and the nominal annual return on equity will be equal to the NEB multi-pipeline rate plus a 225 basis-point adjustment;
- The capital revenue requirement will be recovered on a rolled-in basis in the Enbridge Mainline tolls;
- Operating expenses, pipeline integrity and maintenance capital costs will be estimated in good faith by Enbridge and rolled into the Enbridge Mainline tolls and ultimately included in the 2010 Incentive Tolling Settlement; and
- A capital cost risk-sharing mechanism will determine the actual controllable capital costs to be included in the Project rate base.

Table 6-1 summarizes those portions of the Guidelines for Negotiated Settlements of Traffic, Tolls and Tariffs applicable to the OH-5-2007 proceeding. The second column of the table lists Enbridge's evidence and submissions with regards to the Guidelines.

Views of the Board

The Board is of the view that the Settlement meets the requirements of the *Revised Guidelines for Negotiated Settlements of Traffic, Tolls and Tariffs* and that the resulting tolls will be just and reasonable and that there will be no unjust discrimination.

Table 6-1
Summary of NEB Guidelines for Negotiated Settlements, Evidence and Submissions

	Guidelines*	Evidence and Submissions
(i)	The settlement process should be open and all interested parties should be invited to participate in the negotiations and have a fair opportunity to have their interests recognized.	Producers and shippers indicated their preference for Enbridge to negotiate the commercial terms of the Settlement through CAPP. Discussions between Enbridge and CAPP started in the third quarter of 2006 and led to the Settlement reached in June 2007. Enbridge also had meetings about the Project with individual shippers and other interested parties who are either not CAPP members or not active in the CAPP committee process.
(ii)	The settlement cannot contain provisions which are illegal or contrary to the NEB Act, or that are otherwise contrary to the public interest.	The Settlement was filed as part of the application for the Board's consideration.
(iii)	The settlement process must produce adequate information on the public record for the Board to be able to determine that the resulting tolls are just and reasonable and not unjustly discriminatory.	The Settlement contemplates a rolled-in tolling approach since the Project will be integrated to the Enbridge Mainline and provides overall system-wide benefits to all shippers. In addition, it will be virtually impossible to distinguish a Line 4 shipper from existing Enbridge Mainline shippers. The expected toll increase for the first full year of service of the Project will be between 5.2 percent and 7.7 percent on the Enbridge Mainline for heavy crude.
(iii)	The applicant must provide a summary of the process by which the settlement was obtained and an explanation of the support for the settlement.	The Settlement was concluded on a negotiated basis based on all of the components reflected in it. CAPP, via a letter which was filed as part of the application, supported the Settlement. Enbridge held an open house for its shippers and other interested parties and made presentations respecting the Project to various organizations. No concerns were raised at these events.

* The full discussion in the Board's Revised Guidelines document, issued 12 June 2002, should be referred to for any future negotiated settlement.

Chapter 7

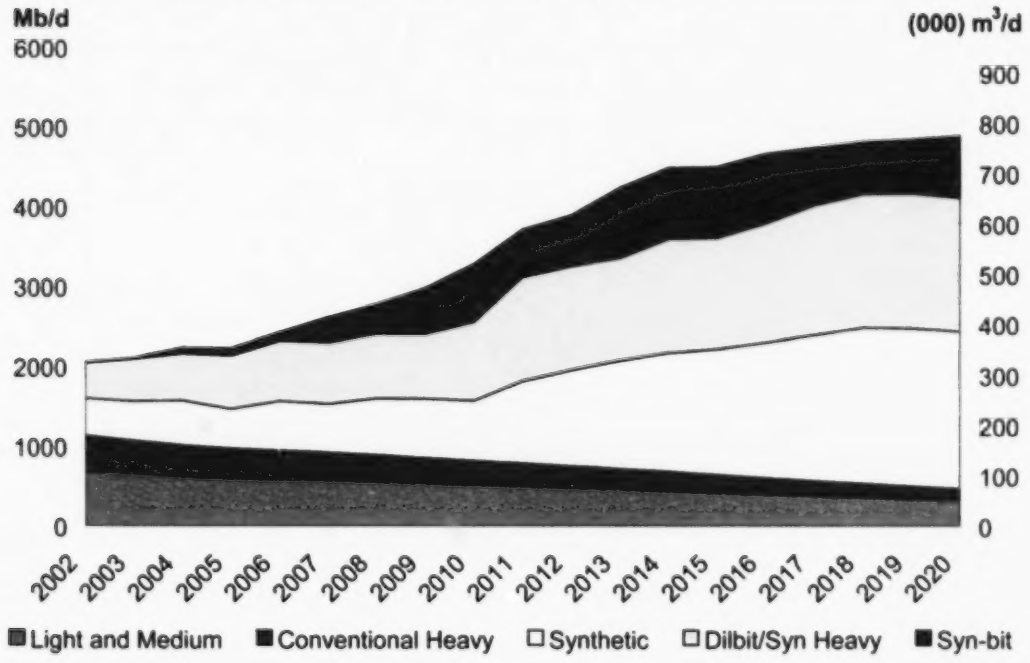
Supply, Markets, Financing and Economics

In making its determination on the justification for economic feasibility of a proposed project, the Board assesses whether the facilities are needed and would be used at a reasonable level over their expected economic life. In order to make this determination, the Board considers the evidence submitted on the supply of commodities that will be available to be shipped on the Project, the availability of adequate markets to receive products delivered by the Project and the adequacy of existing capacity. As well, the Board considers evidence related to the financing of the construction and ongoing operations of a proposed project. The Board also examines whether there is a reasonable likelihood that tolls will be paid.

7.1 Crude Oil Supply

In support of its application, Enbridge included its own May 2007 long-term forecast of oil supply to 2016. Enbridge also included a report by Muse Stancil & Co. (Muse) titled, *Market Assessment for Alberta Clipper Project 2010-2020, Muse Stancil, March 2007*, which highlighted the May 2006 CAPP production forecast. Figure 7.1 reproduces the CAPP oil supply forecast submitted by Enbridge.

Figure 7.1
CAPP Western Canadian Crude Supply Forecast from Exhibit B-1F



In all long-term forecasts submitted, significant growth is expected in the Western Canada Sedimentary Basin (WCSB) production over the next 10 to 15 years. By 2010, the forecasts show that there could be between 95 390 m^3/d to 136 700 m^3/d (600,000 b/d to 860,000 b/d) of incremental crude oil production over estimated 2006 production levels. By 2015, the forecasts show that the incremental production could further increase by 193 200 m^3/d (1,215,000 b/d) over the estimated 2010 production level.

Enbridge stated that the forecasts indicate strong growth potential for unconventional crude stemming from many oil sands projects, as conventional crude oil declines. The supply of condensate for bitumen dilution is expected to increase through railing new condensate in western Canada and importing diluent through the Enbridge Southern Lights project, compensating declining WCSB production of condensate.

Enbridge was questioned by the Board about its view of the impact of the Alberta government's Royalty Framework on the long-term WCSB oil supply outlook. Enbridge stated that many factors could influence production forecasts, such as the price of crude oil, labour constraints, corporate tax structures and royalty rates. The Project would still be needed to handle those oil sands projects that are currently being built, to be in place by mid-2010, since there would be a high probability of meeting production forecasts. In the medium-term to 2015, some slippage could occur but most oil companies that have already invested in approved projects will continue to target these projects and in-service dates. Forecasts out to 2020 could experience some decrease in production. The uncertainties suggested by Enbridge are those projects that are pending approval. However, production by 2020 could be upwards of 317 000 m^3/d (2,000,000 b/d) over 2006 production levels.

Views of the Board

Based on the evidence before the Board, the Board accepts that western Canadian crude oil production has grown significantly and will continue to grow due to the development of the oil sands. Enbridge's evidence that changes in the Alberta Royalty regime would have very little impact in the short-term (2007-2011) and some effect post-2015, but the upward trend in oil sands development will be maintained, is also reasonable. The oil supply forecasts were not challenged by any party throughout the hearing. The Board therefore accepts that crude oil supply is likely to increase above current levels in the coming years such that the supply can be reasonably expected to support the use of the Project.

7.2 Markets and Downstream Transportation

7.2.1 Markets

Enbridge stated that the Project is designed to transport heavy crude oil gathered in Edmonton to Hardisty. The expected growth in crude oil produced in the WCSB will be supplied to existing and new markets in eastern Canada and the U.S.

The Muse report concluded that the largest growth area served by the Enbridge Mainline for refining WCSB crude was Ontario, the Mid-continent, the U.S. Gulf Coast and the U.S. Midwest, where it is expected that 50 percent of this supply will be absorbed. No significant refinery capacity expansions were expected in Alberta.

The Muse report also noted that several U.S. refineries have announced refinery capacity expansions or upgrading investments. Enbridge confirmed at the hearing that U.S. refiners have been forming new joint venture agreements with producers of crude oil in the WCSB.

Views of the Board

The Board accepts the evidence of markets for the projected increase in crude oil supply out of the WCSB, as submitted by Enbridge and supplemented by the Muse report. The Muse report provided details of refining capacities in major refining markets, including Ontario and the U.S. Midwest, which would be accessible via the Project, and onward through the Alberta Clipper project. Updated information supplied during the hearing by Enbridge provided additional support for these new refining opportunities. The evidence was not challenged by any party throughout the hearing. The Board finds the assessment of oil demand and expected markets to be reasonable and is satisfied that there will likely be sufficient markets for crude oil delivered by the Project.

7.2.2 Transportation

Enbridge stated that the Project is required in order to increase take-away capacity out of Edmonton for new oil sands projects currently under development. There are at least three new feeder pipelines that will link new oil sands projects with the Edmonton pipeline hub over the next two or three years, delivering approximately 157 400 m^3/d (990,000 b/d) of new oil sands production.

From Edmonton, there are three main pipelines to move oil exports to markets: the Trans Mountain pipeline, which is developing 6 360 m^3/d (40,000 b/d) of incremental capacity (the TMX Anchor Loop project), the Rangeland pipeline and Enbridge's Mainline system. Hardisty is the other main distribution centre in Alberta that could offer take-away capacity for the oil sands production, and currently provides outbound capacity on the Enbridge Mainline and the Express/Platte pipeline. Hardisty is also the starting point for the recently approved Keystone pipeline and the Alberta Clipper project with incremental capacities of 69 200 m^3/d and up to 127 200 m^3/d (800,000 b/d), respectively. In the short-term, Hardisty is expected to receive approximately 23 900 m^3/d (150,000 b/d) of incremental supply from oil sands production.

Since the Project would be integrated into the entire Enbridge Mainline system, this would increase flexibility and capacity by reallocating some pipelines to different delivery service, and by raising the potential to increase both light and heavy transportation capacity exiting Edmonton, Alberta to eastern Canadian and U.S. markets.

Views of the Board

The Board finds that Enbridge has demonstrated that there will be significant new supply to be transported from Edmonton. As well, the Muse report provided strong evidence that there is likely to be demand for this supply from existing and new markets. The Board is therefore satisfied that there is likely to be a need for the additional transportation capacity to be provided by the Project.

7.3 Project Financing and Economic Feasibility

Enbridge's Evidence

Enbridge intends to use a commercial paper program to fund the construction of the Project and then refinance the construction funding at the appropriate time with long-term debt. Enbridge Inc., Enbridge's parent company, will ultimately provide the equity financing for the Project and will source the equity funding from internally generated cash flows and capital market transactions.

Enbridge submitted that there was broad industry support for additional mainline capacity from Edmonton to Hardisty. Furthermore, Enbridge submitted CAPP's Letter of Support for the Settlement as part of its application.

Views of the Board

Given the estimated capital cost of the Project ($309.5 million), the Board is of the view that the method of financing proposed by Enbridge is appropriate.

Based on the Board's findings within the previous sections of Chapter 7 related to supply, markets and transportation matters, it is the Board's view that the Project is likely to be used at a reasonable level over its economic life. The Board also notes CAPP's support for the Settlement and the fact that no shippers or interested parties raised any concerns related to it. As a result, the Board is of the view that the Project is economically feasible.

Chapter 8

Conclusion

Enbridge made an application for:

(a) a certificate of public convenience and necessity, pursuant to section 52 of the NEB Act, authorizing the construction and operation of the Project;

(b) approval for reactivation of pipe segments pursuant to section 45 of the OPR-99;

(c) approval under Part IV of the NEB Act for the proposed tolling methodology for the Project; and

(d) such further and other relief as Enbridge may request or the Board may deem appropriate pursuant to section 20 of the NEB Act.

Concluding Comments

Before coming to the Board's disposition in this matter, the Board is of the view that a few additional comments are warranted. The Board notes that Enbridge has made several commitments in its application, in responses to Information Requests, and during the hearing. The Board expects Enbridge to track compliance with all commitments made in the application process, as well as the commitments imposed as conditions to any approval. As indicated in its response to Information Request 5.4, Enbridge agreed to develop and file with the Board prior to construction, a commitments tracking table listing all commitments, conditions, and their status. Monthly updates to the status of fulfillment of commitments and conditions shall be filed with the Board until final leave to open is granted. The Board has included Enbridge's commitment in this regard as a condition, set out in Appendix II to these Reasons.

With respect to the provision of information during the hearing process, the Board expects that companies will submit, in a timely manner, all relevant plans and mitigation strategies. This is critical to the Board to allow it to determine not only how proposed mitigation may address potential impacts from project activities, but also to allow the Board to consider any comments on proposed mitigation measures by those persons who may be impacted, pursuant to principles of natural justice. In this proceeding, for example, the provision of various surveys and plans, although requested in advance and not unexpected given the Board's past practice, will not be provided to the Board by Enbridge until after the close of the evidentiary portion of the hearing. The Board has therefore required that these plans be submitted for approval. Companies should not assume that post-certificate condition compliance matters are necessarily more quickly dealt with than if they had been addressed in the hearing process where impacted persons may have been involved.

Additionally, the Board notes that Enbridge's proposed construction start date of 5 May 2008 for the station facilities is shortly after this decision is issued. Specific conditions in Appendix II require Enbridge to have filed certain items prior to issuance of this decision and before any decision from Governor in Council (GIC) is received. For example, Condition 4 requires the filing of the EPP for the station facilities at least 45 days prior to commencement of construction, which was 19 March 2008.

By setting such tight timeframes for itself, the Board notes that Enbridge appears to have accepted the attendant risks to its Project that tight timelines create. For example, meeting the proposed timeline for construction Enbridge has set for this Project is contingent on a number of things happening, including early drafts of conditions being amended as requested by Enbridge; certificate approvals, condition compliance and other regulatory approvals being obtained by Enbridge, and such approvals being obtained in sufficient time for Enbridge to implement its proposed construction schedule.

However, it should be noted that Enbridge's proposed timelines will not impact the Board's regulatory oversight and that the appropriate time will be taken by the Board to assess post-certificate matters, as required, in order to fulfill its mandate under the NEB Act. Further, in terms of prioritizing of the Board's post-certificate work, it should be noted that a priority may be given to projects that have already received all appropriate approvals, notwithstanding the tight timelines in Enbridge's own proposed Project schedules. To avoid creating business risks to their projects, companies are expected to build in to their schedules sufficient time for all steps in the regulatory process.

Chapter 9

Disposition

Section 52, Part III NEB Act Determination

The Board has described the public interest as:

> The public interest is inclusive of all Canadians and refers to a balance of economic, environmental and social interests that changes as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.

Under Part III of the NEB Act, the factors to be considered and the criteria to be applied in coming to a decision on public interest or the present and future public convenience and necessity may vary with the circumstances, including the application, the location, the commodity involved, the various segments of the public affected by the decision, societal values at the time, and the purpose of the applicable section of the NEB Act.

The Board has carefully considered the evidence and submissions made by participants to the OH-5-2007 proceeding on the various factors it considered during its assessment of Enbridge's section 52 application. After considering all relevant matters, as set out in the evidence, the preceding chapters and in the Board's ESR, the Board is of the view that the benefits of this Project outweigh the burdens associated with it. The Board is satisfied from the evidence that the Project is, and will be, required by the present and future public convenience and necessity and therefore finds that approval of Line 4 Extension Project is in the public interest.

Having made its determination under the CEA Act, as noted in the ESR and in Chapter 4, the Board approves Enbridge's application pursuant to section 52 of the NEB Act and will recommend to the GIC that a Certificate be issued, subject to the Certificate conditions set out in Appendix II.

Determination on Reactivation Request

As noted in Chapter 2, the Board is also of the view that a reactivation order should be granted. The Board grants approval pursuant to section 45 of the OPR-99 for the reactivation of the deactivated pipe segments. The form of the order, subject to the conditions contained in Appendix III, is attached. A signed reactivation order will be issued under separate cover shortly.

Part IV Determination

The Board has also considered the tolls application pursuant to Part IV of the NEB Act, as discussed in Chapter 6. The Board finds that the toll Settlement is acceptable in light of the

requirements of Part IV of the NEB Act and the Guidelines, and therefore grants the approval requested.

Additional Relief Determination

The Board finds that the additional relief requested by Enbridge with respect to the splitting of the Project-specific EPP and the clarification with respect to the requirement to file PPBORs for certain portions of the Project, as discussed in Chapters 4 and 5 and in the ESR, is appropriate given the evidence and facts before it in this proceeding. Since the Board's Views in Chapter 4 speak to the Project-specific EPP without prescribing the content of the split EPPs, Enbridge should determine the appropriate and relevant information in each EPP prior to submission. Moreover, the Board has set out its expectations for the filing of PPBORs for this Project in Chapter 5. Consequently, the Board has varied the conditions, as set out in Appendix II.

The foregoing constitutes our Reasons for Decision in respect of the application considered by the Board in the OH-5-2007 proceeding.

S. Leggett
Presiding Member

R. R. George
Member

K. Bateman
Member

Calgary, Alberta
April 2008

Appendix I

List of Issues

1. The need for the proposed facilities.

2. The economic feasibility of the proposed facilities.

3. The potential commercial impacts of the proposed project.

4. The potential environmental and socio-economic effects of the proposed facilities, including those factors outlined in subsection 16(1) and 16(2)(b) of the *Canadian Environmental Assessment Act*.

5. The appropriateness of the general route of the pipeline.

6. The appropriateness of the proposed tolling methodology and the proposed method of financing the proposed project.

7. The suitability of the design, construction and operation of the proposed facilities, including but not limited to safety and integrity.

8. The terms and conditions to be included in any approval the Board may issue.

9. The impacts of the Project on Aboriginal peoples.

Appendix II

Certificate Conditions

General

1. Unless the Board otherwise directs, Enbridge shall cause the approved Project to be designed, located, constructed, installed, and operated in accordance with the specifications, standards and other information referred to in its application or as otherwise agreed to during questioning or in its related submissions.

2. Unless the Board otherwise directs, Enbridge shall implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations and procedures for the protection of the environment included in or referred to in its application or as otherwise agreed to during questioning or in its related submissions.

3. Enbridge must comply with all time frames for filing set out in this Certificate unless the Board directs otherwise.

Prior to Construction Activities (including clearing or ground-breaking activities)

4. Enbridge shall file with the Board for approval, at least 45 days prior to commencement of construction, an updated Project-specific Environmental Protection Plan (EPP) for the Edmonton Terminal, Strome Station and Kingman Station facilities (station facilities). The EPP shall describe all environmental and socio-economic protection procedures, and mitigation and monitoring commitments, as set out in the application or as otherwise agreed to during questioning, in its related submissions or through consultations with other government agencies. Construction of the station facilities shall not commence until Enbridge has received approval of its EPP from the Board.

5. Enbridge shall file with the Board for approval, at least 60 days prior to commencement of construction, an updated Project-specific EPP for the pipeline, excluding station facilities. The EPP shall describe all environmental and socio-economic protection procedures, and mitigation and monitoring commitments, as set out in the application or as otherwise agreed to during questioning, in its related submissions or through consultations with other government agencies. Construction of the pipeline shall not commence until Enbridge has received approval of its EPP from the Board.

6. Enbridge shall file with the Board for approval, at least 60 days prior to commencement of construction, a report describing the results of the consultation conducted for the development of the Urban Construction Plan. The report shall include:

   (a) a description of any comments and concerns raised during consultations; and

(b) a description of how the comments and concerns have been addressed by Enbridge.

7. Enbridge shall file with the Board, at least 30 days prior to commencement of construction, a program to monitor the success of the wetland mitigation measures, which ensures that the wetland function can be restored or componsated and that the "no net loss" of wetland function can be achieved. In addition, the monitoring program shall be filed with evidence demonstrating Environment Canada's satisfaction with the above mentioned program and associated measures, or if satisfaction cannot be obtained, with a table summarizing any outstanding concerns and how Enbridge intends to address the concerns.

8. Enbridge shall file with the Board for approval, at least 45 days prior to commencement of construction on lands for which surveys are outstanding, a report on the results of each of the outstanding surveys for wildlife, vegetation including rare plants (early and late bloomers), weeds and wetlands. Construction shall not commence on lands for which surveys are outstanding until:

(a) Enbridge has received approval from the Board of its reports regarding all the outstanding surveys; and

(b) any additional mitigation measures resulting from the reports regarding all the outstanding surveys are included within the Project-specific EPP for the pipeline.

9. Enbridge shall file with the Board, at least 60 days prior to commencement of construction for the pipeline, a Clubroot Management Plan. The management plan shall be based on a risk evaluation, taking into consideration the presence of crops susceptible of being affected by clubroot disease, past or actual occurrence of clubroot disease within the County, the extent and frequency of use of the equipment on the right-of-way that may spread clubroot disease and weather conditions. The management plan shall include all necessary and appropriate measures to ensure the prevention of clubroot disease infestation.

10. Enbridge shall develop and file with the Board 7 days prior to construction, a commitments tracking table listing all commitments made in its application, responses to information requests, and during the hearing, as well as their status. The table shall also include conditions placed on the Certificate. Monthly updates to the status of fulfillment of commitments and conditions shall be filed with the Board until final leave to open is granted.

Post-Construction Activities

11. The Board directs Enbridge to file, at least 30 days prior to applying for Leave to Open, three updated copies of its Emergency Preparedness and Response Plan(s) required by the *Onshore Pipeline Regulations, 1999* and as set out in the Board's 24 April 2002 All Company letter regarding *Security and Emergency Preparednesss and Response Programs,* or three copies of any revisions to the existing Emergency Preparedness and Response Plan(s) on file with the Board.

12. No later than 30 days after the approved Project is placed in service, Enbridge shall file with the Board a confirmation, by an officer of the company, that the approved Project was completed and constructed in compliance with all applicable conditions in this Certificate. If compliance with any of these conditions cannot be confirmed, the officer of the company shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is an officer of the company.

13. Enbridge shall file with the Board, no later than 90 days after the approved Project is placed in service, the results of post-construction noise surveys conducted at the Edmonton Terminal and Kingman and Strome pump stations demonstrating compliance with Energy Resources Conservation Board Directive 038: Noise Control.

14. On or before the 31 of January of each of the first five (5) years after the approved Project is placed in service, Enbridge shall file with the Board, and make available on its website for informational purposes, a post-construction environmental report that:

    (a) identifies on a map or diagram the location of any environmental issues which arose during construction;

    (b) discusses the effectiveness of the mitigation applied during construction and the methodology used to assess the effectiveness of mitigation;

    (c) identifies the current status of the issues identified (including those raised by landowners), and whether those issues are resolved or unresolved; and

    (d) provides proposed measures and timelines Enbridge shall implement to address any unresolved concerns.

    The report shall address, but not be limited to, issues pertaining to soil productivity on cultivated lands, weeds, reclamation of native vegetation, plant species of special concern and wetland functions.

15. Unless the Board otherwise directs prior to 31 December 2009, this Certificate shall expire on 31 December 2009, unless construction in respect of the Project has commenced by that date.

Appendix III

Reactivation Order

ORDER X0-E101-05-2008

IN THE MATTER OF the *National Energy Board Act* (the NEB Act) and the regulations made thereunder; and

IN THE MATTER OF an application, pursuant to section 45 of the *Onshore Pipeline Regulation*, 1999 (OPR-99), by Enbridge Pipelines Inc. (Enbridge), filed with the National Energy Board (the Board) under File OF-Fac-E101-2007-02 02.

BEFORE the Board on 4 April 2008.

WHEREAS Enbridge filed an application dated 28 June 2007 pursuant to section 45 of the OPR-99 to reactivate three existing segments of 48 inch outside diameter pipe totaling 42.5 kilometres in length as further described in attached Schedule A (the Existing Pipe), as part of its application for the Line 4 Extension Project;

AND WHEREAS the Board permitted the deactivation of the Existing Pipe segments in Order XO-E101-04-2006;

AND WHEREAS pursuant to the *Canadian Environmental Assessment Act* (CEA Act), the Board has considered the information submitted by Enbridge and has performed an environmental screening of the Line 4 Extension Project, which includes the Existing Pipe;

AND WHEREAS the Board has determined, pursuant to paragraph 20(1)(a) of the CEA Act that, taking into account the implementation of Enbridge's proposed mitigative measures and the conditions to this order, the Line 4 Extension Project is not likely to cause significant adverse environmental effects;

AND WHEREAS the Board's decision about the reactivation of the Existing Pipe is set out in the Board's Reasons for Decision for OH-5-2007, issued April 2008 (the NEB Decision);

AND WHEREAS the Board has examined the application and considers it to be in the public interest to grant the requested reactivation order with respect to the Existing Pipe;

IT IS ORDERED that, pursuant to section 45 of the OPR-99, the Existing Pipe may be reactivated subject to the following conditions:

1. Unless otherwise directed by the Board, until such time as GIC approval of the NEB Decision is obtained, Enbridge shall comply with all conditions set out in Appendix II of the Board's Reasons for Decision that are applicable to the Existing Pipe and its reactivation. Should GIC approval be obtained, and a Certificate issued, Enbridge shall henceforth comply with all remaining applicable conditions set out in the Certificate that have not already been complied with prior to the issuance of the Certificate.

2. Within 30 days of the date that the last Order was issued for leave to open, Enbridge shall file with the Board a confirmation, by an officer of the company, that the Existing Pipe was reactivated in compliance with all conditions in this Order. If compliance with any of these conditions cannot be confirmed, the officer of the company shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is an officer of the company.

3. Unless the Board otherwise directs prior to 31 December 2009, this Order shall expire on 31 December 2009 unless the reactivation of the Existing Pipe has commenced by that date.

NATIONAL ENERGY BOARD

Claudine Dutil-Berry
Secretary of the Board

Schedule A
ORDER X0-E101-05-2008
Enbridge Pipelines Inc., Application dated 28 June 2007,
Reactivation Pursuant to Section 45 of the *Onshore Pipeline Regulations, 1999*
The Line 4 Extension Project – Reactivation of Existing Pipe
File OF-Fac-Oil-E101-2007-02 02

PIPELINE SPECIFICATIONS

Segment Location	Upstream of Kingman Station	Upstream of Strome Station	Upstream of Hardisty Station
Construction Type	Reactivation		
Length	14.419 km	13.717 km	14.399 km
Product Carried	Heavy Crude Oil		
Outside Diameter	1219 mm (NPS 48)		
Grade	X52 (358 MPa)		
External Coating Type	Polyethylene tape		